Effect of Knowledge Management Practices on Micro, Small and Medium Enterprises Performance in Migori County

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Abstract

In the last decade the role of knowledge management practices in business organizations has been emphasized by practioners, academics and entrepreneurs. Ironically, most of these studies have focused on large organizations, yet others have predominantly focused on secondary literature of past studies for their findings. In addition, some studies have focused on particular aspects like tacit or explicit knowledge without giving a clue on the relationship to performance using both. This study sought to find out the effect of knowledge management practices on organizational performance with particular reference to MSMEs, thereby filling the gap on smaller organizations. The study was also empirical and addressed both tacit and explicit forms of knowledge. The study was guided by knowledge based view theory of the firm. The objective of the study was to find out the effect of organizational learning, knowledge sharing, and knowledge acquisition on Micro, Small and Medium Enterprise performance in Migori County, Kenya. The study was conducted by cross- sectional survey, data being collected in the month of March and April 2014 using questionnaire and structured interview responses from a sample of 46 owner and 110 employed managers of MSMEs randomly selected from the accessible population using stratified random sampling technique. Cronbach alpha was used to test reliability. The data was analyzed using both descriptive as well as inferential statistics. The study found that knowledge sharing had a significantly positive effect on MSMEs performance, whereas organizational learning and knowledge acquisition had positive but insignificant effects on MSMEs performance in Migori County, Kenya. The study recommends that MSMEs be encouraged to facilitate implementation of knowledge sharing so as to realize significant improvements in their performance. The study concludes that MSMEs must embrace knowledge management practices, in particular knowledge sharing for their enhanced performance.

1.0 Introduction

In the last decade the role of knowledge management practices in firms has been highlighted by practitioners, academics and entrepreneurs. Interestingly, most studies on knowledge management have focused on large organizations with minimal attention attributed to the business sector encompassing Micro, Small and Medium Enterprises. In general, past research on knowledge management practices has investigated organizations based on secondary literature involving past researches. In addition, research in this field has narrowed down on particular aspect of knowledge, for instance tacit knowledge, thereby ignoring explicit knowledge and its contribution to organizational performance, yet both types of

knowledge exist in Micro, Small and Medium Enterprises. Moreover, these studies have majorly targeted large firms and their success factors in relation to performance. In the process, emphasis has been given to large firms in developed countries like Italy and 'Asian Tigers' like Malaysia hence ignoring developing world situations like Kenya.

To survive and perform, organizations ought to revisit their ability and attitude toward developing knowledge based competencies. The ability to manage an organization's knowledge will ultimately results in smarter and more capable organization thus enabling it to manage its assets cheaper, better and more effectively than its competitors (Ahmed et al., 2002). In implementing knowledge management practices as part of their core business reforms initiative, Micro, Small and Medium Enterprises can remain with a competitive edge and renewed sustainability.

A study by Zack et al., (2009) investigated the organizational impact of knowledge management and found that it influences many different aspects of organizational performance significantly. Radwan *et al.*, (2009) in a study of the extent of adoption of knowledge management practices in pharmaceutical firms in Jordan found that knowledge management practices had the highest impact on new product success followed by financial performance. The purpose of knowledge management practices in organizations is to capture the firm's collective knowledge expertise and distribute it to wherever it can enhance the firm's desired capabilities. Successful firms therefore, should be knowledge creating (Armstrong, 2006). Knowledge management practices are the processes and practices that form part of knowledge creation, acquisition, sharing and using knowledge (Scarborough et al, 1999).

Apart from Malaysia where knowledge management practices in multinational corporations brought positive effects, there have been scanty studies on the same practices in Micro Small and Medium Enterprises in Kenya, and especially in Migori County. Given the critical role that knowledge management plays in today's organizations and the little focus it has been given in Micro, Small and Medium

Enterprises, this study was designed to investigate the effect of knowledge management on Micro, Small and Medium Enterprise performance in Migori County, Kenya. The study concludes that Micro, Small Medium Enterprises must embrace Knowledge Management Practices, in particular, knowledge sharing for enhanced performance. The study recommends that Micro, Small Medium Enterprises be encouraged to facilitate implementation of knowledge sharing so as to realize significant improvements in their performance. This paper further discusses the theoretical framework, conceptual framework, knowledge management practices and performance, method, discussion, and, conclusion in the subsequent sections

2.0 Literature Review

The purpose of knowledge management in organizations is to capture the firm's collective knowledge expertise and aim at distributing it to wherever it can achieve competitive advantage thereof. Furthermore, successful companies are knowledge creating (Radwan et al., 2012). Organizational learning, knowledge sharing and knowledge acquisition were discussed and their contributions to MSMEs performance in Migori County, Kenya. Organizational learning leads to gaining of new knowledge, practices and information geared towards improvements in the organization, its objectives, environment and its accompanying processes (Oyoo, 2015). Learning is at the heart of corporate governance and it has become the essence of productive activity that has new rules, new boundaries and new ways of behaving (Garcia et al., 2009). Given that knowledge management involves managing the learning process of individuals and collective members of the organization (Garcia et al., 2009), organizations that encourage it should ultimately achieve strategic gains resulting from the learning endeavor. Simon (2009) avers that learning in the organization can take multiple forms: individuals in the organization learning new facts and procedures and the organization incorporating new knowledge into its files and computer systems. Gartner (2012) avers that knowledge sharing spans the three components of knowledge management process; knowledge capture, knowledge organization and knowledge access – to enable people share knowledge across the boundaries of geography and time.

Knowledge sharing therefore leads to exchange of critical information in the organization which inevitably yields enhance performance. The idea behind knowledge sharing is to cause familiarity to work environment, motivate and thereby lead to improved employee output. Knowledge acquisition enables the organization to create, generate, develop, build and construct knowledge (Wan et al., 2012). The MSMEs can acquire knowledge from human experts, documents and computer files (Jones, 1989). Essentially, this knowledge is vital to the organization has it is a key source of competitive advantage and innovation in the organization (De Geus, 1997). External knowledge is important and can be acquired from suppliers, competitors, partners and external experts (Gamble and Blackwell, 2001).

MSMEs performance could be characterized by improved market share which is manifest in new customer acquisition, positive results of demographic analysis of new customers applying to become members (potential customers), significant levels of approval or rejection of products, and customer attrition. Maintenance or increase of market share is a pointer to enhanced competitiveness from an organization. Performance can also be manifested in the organization's profitability, the key indicator for profitability is profit derived from customers by demographics (Dessler, 2001). Finally, new product success helps organizations tap into a new market thereby diversifying income generating streams leading to stability of the organization (Oyoo, 2015).

3.0 Methodology

Survey research design was used in this study. In particular, the cross sectional design was adopted. In cross sectional survey design, data is collected from the same target population at one point in time, although the time taken to collect this data may vary between a day and a few weeks (Oso and Onen, 2006). This study was conducted among Micro, Small Medium Enterprises in Migori County. The County has 1302 MSMEs (Migori County Government, 2013). Migori County offers a plausible research context in that over the past decadeit has experienced an influx of MSMEs over the last decade due to significant investment in agriculture, good road network and a stable county government. The

different MSMEs in the county provided the study with an invaluable insights into the knowledge management practices in the MSMEs. Additionally, the county government attracted varied skill sets with additional knowledge management practices that enabled the study to uncover valuable insights as to their knowledge management trends and experiences.

Personal interview was used for respondents with basic education and especially for those respondents who could be easily accessed. Telephone interview, was used for respondents whose phone numbers were provided and also had mobile lifestyles. In addition some respondents were located in fairly inaccessible locations. Finally, internet survey was adopted for the respondents who gave their electronic addresses and were ready to respond accordingly, this mainly targeted educated respondents. Survey is cheap (particularly online surveys), easier to collect data, and, enables researcher to reach several respondents at one instant (Kombo and Tromp, 2010). In particular, structured interviews were used by the researcher to supplement the collection of data. Structured interviews are time saving since the respondents only answer what has been asked by the researcher (Kombo and Tromp, 2010). 'The researcher should be aware that some types of instruments are unsuitable for some groups of people due to factors such as literacy levels, profession and culture (Kombo and Tromp, 2010). Questionnaires enable collection of data from large samples in diverse regions. It upholds confidentiality, saves time and reduces interviewer bias (Kombo and Tromp, 2010). The questionnaire elicited feedback on a scale of 1-5, which is adopted on a Likert-scale (Gotzamani and Tsiotras, 2001). It ranged from strongly disagree (1) to strongly agree (5).

4.0 Results and Discussion

Organizational learning does not greatly affect organizational performance. This conclusion is arrived at as the correlation coefficient between organizational learning and Micro, Small Medium Enterprises performance was weak, though positive, implying it indeed affects Micro, Small Medium Enterprises performance but not as much as other variables. Learning new methods from competitors was the greatest

contributor to Micro, Small Medium Enterprises performance under organizational learning, followed by problem solving initiatives. Participation in seminars, workshops and conferences came third, and lastly, was experimentation in the Micro, Small Medium Enterprises;

Knowledge Sharing greatly affects the Micro, Small Medium Enterprises performance. This conclusion is arrived at as the correlation coefficient between knowledge sharing and Micro, Small Medium Enterprises performance was strong and positive. On average, respondents regarded share fairs and new skills exchanged as the joint most practiced factors in their Micro, Small Medium Enterprises s followed by information sharing. Least prevalent was best practices shared routinely in the organization; Knowledge acquisition does not significantly affect Micro, Small Medium Enterprises performance in Migori County. On average, the respondents regarded both documented information with pertinent information and knowledge from external sources as the most prevalent, followed by inputs from experts. Least favored contributor in this category was computer files with pertinent information. The correlation results pointed to the fact that knowledge acquisition and Micro, Small Medium Enterprises performance in

Migori County relate positively, albeit weak. Knowledge acquisition, therefore, has no significant effect on Micro, Small Medium Enterprises performance in Migori County**.**

4.1 Descriptive Statistics

i. Organizational Learning.

In table I respondents rated organizational learning in their organizations at between 4.29 (experimentation in the organization) and 4.62 (Learning from competitors). It was evident therefore, that on a scale of 1 (completely disagree) to 5 (completely agree), that the respondents 'agreed' that organizational learning was manifest in their Micro, Small and Medium Enterprises. All statements had less than one standard deviation from the mean, with learning from competitors having the least departure from the mean (0.583) and most spread out being experimentation in the organization at 0.805, indicating that the data points tend to be very close to the mean. All the variables were concentrated on the left of the means with extreme values to the right as indicated by their skewness values greater than zero except for attendance of seminars and workshops. All variables were platykurtic with kurtosis of less than three except experimentation in the organization which was leptokurtic.

Table I: Organizational learning

Statement	Mean	Std Deviation	Skewness	Kurtosis
Our employees attend seminars/workshops/conference	4.36	0.736	-0.384	-0.781
There are problem solving initiatives from our employees	4.39	0.758	1.345	-1.242
We experiment frequently in this organization	4.29	0.805	0.617	-1.038
Learning from competitors is encouraged	4.62	0.583	2.214	-1.477

ii. Knowledge sharing

Respondents rated knowledge sharing in their organizations at between 4.49 (Information sharing in the firm) and 4.61 (New skills exchanged amongst employees). It was evident therefore, that on a scale of 1 (completely disagree) to 5 (completely agree), that the respondents 'completely agreed' that knowledge

sharing was manifest in their Micro, Small and Medium Enterprises. All statements had less than one standard deviation from the mean, with new skills exchanged amongst employees having the least departure from the mean (0.638) and most spread out being Information is sharing in the firm at 0.749 indicating that the data points tend to be very close to the mean. All the variables were concentrated on the right of the

means with extreme values to the left as indicated by their skewness values less than zero. All variables were platykurtic with kurtosis of less than three implying that the probability for

extreme values is less than for a normal distribution and that the values are wider spread around the mean.

Table II: Knowledge sharing

Statement	Mean	Std Deviation	Skewness	Kurtosis
Information is shared in this firm	4.59	0.699	-2.219	6.341
New skills are exchanged amongst employees	4.54	0.676	-1.794	4.860
Best practices are shared routinely	4.49	0.749	-1.657	2.710
Our employees participate in share fairs	4.61	0.638	-2.000	6.029

iii. Knowledge Acquisition

Respondents rated knowledge acquisition in their organizations at between 4.37 (computer files with pertinent information) and 4.45 (Documented information provides this firm with vital information). It was evident therefore, that on a scale of 1 (completely disagree) to 5 (completely agree), that the respondents 'agreed' that knowledge acquisition was manifest in their

Micro, Small and Medium Enterprises. All statements had less than one standard deviation from the mean, with documented information having the least departure from the mean (0.747) and most spread out being expert inputs at 0.859, indicating that the data points tend to be very close to the mean.

Table III: Knowledge acquisition

Statement	Mean	Std Deviation	Skewness	Kurtosis
We welcome knowledge from external sources	4.43	0.826	-1.688	2.937
Expert inputs are incorporated in our firm's processes	4.43	0.796	-1.398	1.456
We have computer files with pertinent information	4.37	0.859	-1.542	2.510
Documented information provides this firm with vital information	4.45	0.747	-1.533	2.923

All the variables were concentrated on the right of the means with extreme values to the left as indicated by their skew values less than zero. All variables were platykurtic with kurtosis of less

than three implying that the probability for extreme values is less than for a normal distribution and that the values are wider spread around the mean.

4.2 Correlation Statistics

Table IV: Correlations statistics for linear relationship between variables

	Performance	Organizational Learning	Knowledge sharing	Knowledge acquisition
Performance	1			
Organizational Learning	0.139*	1		
Knowledge sharing	0.628**	-0.078	1	
Knowledge acquisition	0.231*	0.089	0.133*	1

* Correlation is significant at 0.05 level (2- tailed)
** Correlation is significant at 0.01 level (2- tailed)

Pearson Correlations results in table 4.7 showed that organizational learning and MSME performance were positively and significantly related with r=0.139, and p<0.05. Thus, organizational learning had 13.9% positive relationship with MSME performance. The positive sign of the correlation indicates that the two variables MSME performance and organizational learning tend to move together in the same direction, that is, they tend to increase or decrease together.

Knowledge sharing also had a positive relationship with MSME performance with r=0.628, and p<0.01, an indication that knowledge sharing had a 62.8% positive and significant relationship with MSME performance. The coefficient of correlation is positive and this is indicative of the fact that MSME performance and knowledge sharing move together in the same direction, increasing or decreasing together. Lastly, knowledge acquisition was also positively and significantly associated with MSME performance as indicated by r=0.231, and p<0.05 indicating that knowledge acquisition had 23.1% positive relationship with MSME performance. With the positive coefficient, it was evident that the two variables (knowledge acquisition and MSME performance)

move together in the same direction. All the three correlation coefficients are positive which is in agreement with the fact that such aspects as organizational learning, knowledge sharing and knowledge acquisition would ultimately contribute positively to MSME performance in any County.

4.3 Test of Hypothesis

For Organizational learning, the sub independent variables averaged included: participation in workshops and seminars, problem solving initiatives, experimentation and learning new methods from competitors. The sub independent variables that constituted the second independent variable- Knowledge sharing included: - information sharing, new skills exchanged, best practices sharing and share fairs. Knowledge acquisition was derived from the average of the following sub independent variables including knowledge from external sources, expert inputs, computer files with pertinent information and documented information. The results were summarized in table 4.8 as shown.

Table V: Multiple regression model

Unstandardised Standardised Collinearity

	Coefficients		Coefficients		Statistics		
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	0.745	0.224		3.326	0.001		
Organizational Learning	0.015	0.049	0.031	0.306	0.765	0.759	1.318
Knowledge Sharing	0.554	0.068	0.614	8.147	0.000	0.975	1.026
Knowledge Acquisition	0.083	0.051	0.129	1.674	0.126	0.749	1.335
R Square	0.587						
Adjusted R Square	0.579						
Durbin-Watson	1.291						
F	29.117						
Sig	0.000						
Dependent Variable: MSME performance							

The regression equation

$$Y= \beta_0+ \beta_1\varkappa_1 + \beta\varkappa_2+ \beta_3\varkappa_3+\varepsilon_j$$

Where:

Y= MSME performance in Migori County
β_0= Constant term
β_1= slope of Organizational Learning
$\varkappa_1$= Organizational Learning
β_2= slope for Knowledge Sharing
$\varkappa_2$= Knowledge Sharing
β_3 = slope for Knowledge Acquisition,
$\varkappa_3$ = Knowledge Acquisition
ε_j= Error Term.
$Y= 0.745+0.015X_1+0.554X_2+0.083X_3+ \varepsilon_j$

Hence;

MSME Performance= 0.745 + 0.015 Organizational Learning +0.554Knowledge Sharing + 0.083 Knowledge Acquisition + Error Term.

From the model in table 4.8, it is noted that there exists a positive relationship between Y (MSME performance) and all the three independent variables namely organizational learning (X_1), knowledge sharing (X_2) and knowledge acquisition (X_3); based on the positive coefficients of the variables ; β_1 =0.015, β_2 = 0.554 and β_3 = 0.083. Unstandardized coefficients indicate how much the dependent variable varies with an independent variable, when all other independent variables are held constant.

β_1 =0.015, is the sample parameter estimate of the population parameter β_1. It shows that when organizational learning improves by one unit percentage, MSME performance improves by 1.5%. It follows the that a unit improvement in organizational learning in terms of attendance of workshops and conferences, problem solving initiatives, experimentation and learning new methods from competitors will improve MSME performance by 1.5% and vice versa.

The same argument holds for the parameter estimate linking MSME performance and knowledge sharing. The estimate β_2 =0.554

indicates that when knowledge sharing is improved by a unit percentage the MSME performance in the sampled population actually improves by 55.4%. Thus a one percent increase in the level of knowledge sharing of the MSMEs (information sharing, new skills exchange, best practices sharing and share fairs) will generate a 55.4% improvement in the performance of MSMEs in Migori County.

Lastly, β_3 = 0.083 is the sample parameter estimate of the true parameter β_3. From the model, it is deduced that a one percentage improvement in knowledge acquisition would bring about an 8.3% improvement performance for the MSMEs in Migori County. Indeed, a unit increase in knowledge acquisition would encompass all the sub variables that make it up including knowledge from external sources, expert inputs, computer files with pertinent information and documented information. Because the sample of MSMEs in Migori County selected by the researcher for this study is assumed to be representative of the population of the MSMEs, the deductions made herein would surely apply to the entirety of the MSMEs in Migori County.

VIF (Variance Inflation Factor) quantifies the severity of multicollinearity in an ordinary least squares regression analysis (Longnecker, 2004). Multicollinearity arises when the independent variables are related and can yield distorted data results. The VIF values for Organizational learning, Knowledge sharingand Knowledge sharing were found to be 1.318, 1.026 and 1.335 respectively. This is a pointer to the fact that multicollinearity was inexistent in the data. The threshold for strong models is 10 whereas that of weak models is 2.5 (Longnecker, 2004). In this study, however, the Variance Inflation Factor values were way below the threshold.

4.4 Recommendations and Policy Implications

The established that learning new methods from the environment should be encouraged in organizations. Share fairs should be emphasized by organizational leadership. In addition, problem solving initiatives and new skills exchange should be enhanced in organizations that want to achieve improved returns. Furthermore, organizations must invest in documented information to help the acquire knowledge for their overall productivity

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